

LEVERTOVA, L.A.; POSTOL, G.S.

Physical development of creche children in Khabarovsk in 1959.
Vop. otkh. mat. i det. 6 no.4:70-73 Ap '61. (MIRA 14:6)

1. Iz kafedry pediatrii (zav. - dotsent G.S.Postol) Khabarovskogo
meditsinskogo instituta (dir. - prof. S.K.Nechepayev).
(Khabarovsk—CHILDREN—GROWTH)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929510011-3

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929510011-3"

LEVYTEROV, S.M.

Scientific connections of the Academy of Sciences of the Ukrainian
SSR with active scientists of foreign countries in 1957. Visnyk
AN USSR 29 no.3:68-73 Mr '58. (MIRA 11:5)
(Academy of Sciences of the Ukrainian SSR)

117 AND 118 (05/10) PROCESSES AND PROPERTIES INDEX

20

Acceptance test for cement used in oil wells. V. LEVITSKIY. *Arkhivskhizhishch*
Nefyanoy Khimiy 1931, No. 8, 82-4.—Discussion of specifications for cement used
in oil fields of Gorny. V. KALICHVANSKY

ASB-55.4 METALLURGICAL LITERATURE CLASSIFICATION

PORTLAND CEMENT AND POLYESTERS

191 200 100 00000

CO

Portland cement for oil wells. V. K. LEVITSKII. *Onst. Akad. Nauch. SSSR* 1936.
 51 pp.

20

ASM-ELA METALLURGICAL LITERATURE CLASSIFICATION

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22

CH

Equipping reservoirs for storing petroleum products.
V. K. Laveitskii and K. A. Apremov. *Azerbaidzhan*
Neftyanoe Khozyaistvo 1964, No. 7 8, 75-82. A. A. B.

ASB-55A METALLOGICAL LITERATURE CLASSIFICATION

LEVETSKIY V. K.

American Petroleum Institute (Indices of durability of cast iron and pipes of pipes.

(Pokazateli prochnosti obsadnykh i nasosnykh trub. (Perevel s angliiskogo V. K.

Levetiskii redaktor P. M. Abugov) Moskva, 1948, 79 p. (Inostrannaya neftiannaya tekhnika Burenie.)

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 5, No. 1; Page 14

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929510011-3

LEVYNE, A.G.

A G

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929510011-3"

LEVEYNEM N.G.

KHOROSHIKH, Grigoriy Andreyevich; ~~LEVEYNEM, N.G.~~, red.; KEL'NIK, V.P.,
red.izd-va; ZEF, Ye.M., tekhn.red.

[Tube drawer; a textbook for the technical instruction of workers]
Volochnil'shchik trub; uchebnoe posobie dlia proizvodstvenno-
tekhnicheskogo obucheniia rabochikh. Sverdlovsk, Gos.nauchno-
tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe
otd-nis, 1958. 173 p. (MIRA 11:6)
(Tubes) (Rolling (Metalwork))

LEVGOVD, F.A.

Efficiency suggestions. Sakh. prom. 32 no.12:49-50 D '58.
(MIRA 11:12)

1. Sakharnyy savod imeni Artbema.
(Sugar industry--Equipment and supplies)

S/876/62/000/000/004/007
E191/E481

AUTHORS: Levi, A.B., Kondrat'yev, Yu.S.

TITLE: Resettable automatic production line consisting of universal type machine tools for the batch machining of small size turned parts

SOURCE: Proyektirovaniye i ekspluatatsiya avtomaticheskikh liniy mekhanicheskoy obrabotki. Mosk. dom nauchno-tekhn. prop. Ed. by A.P. Vladziyevskiy. Moscow, Mashgiz, 1962. 176-204

TEXT: The mass and batch production of small turned parts from bar or blanks is distinguished by a low percentage of cutting time (40 to 70%) and a high percentage of metal converted into chips. Experience has shown that standard type automatic and semi-automatic machines (capstan lathes, screw machines etc) can be used without modification by the addition of transporters, automatic loaders and similar equipment. The use of non-automatic equipment for operations following the turning operations is associated with difficulties. The creation of automatic lines from universal and unit construction automatic and semi-automatic machines, equiped with resettable automatic loaders makes possible
Card 1/2

Resettable automatic ...

S/876/62/000/000/004/007
E191/E481

the batch machining of single type components. An account is given of the development of such a production line. A group of typical small turned parts is illustrated including a nozzle body, an automotive nut, a sparking plug body and others. Choosing the nozzle body, the machine tools required are enumerated under the headings of lathes, drilling and milling machines, thread rolling and milling machines and others. The automatic loading and transporting equipment is also listed. The operation cycle consists of 8 operations instead of the previous 17. The automatic loading devices are illustrated and described in the sequence of the operations for which they are used. The transporting and distribution devices are also described in detail and illustrated. The layout of the automatic production line and its control panel are illustrated and described. The previously required 107 man hours for 1000 components have been reduced to 17 man hours. The emphasis in this development is the use of existing machinery and existing automatic loaders to achieve low cost automation. There are 18 figures.

Card 2/2 APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929510011-3

LEVI, B.; ZHEREBTSOV, S.

Protection for relay regulators on ZIS-155 buses. Avt. transp.
34 no.6:32 Je '56. (MLRA 9:9)

(Motorbuses--Electric equipment)

~~Benjamin~~ Levi, B.

¹
V Polymerization of vinyl chloride in suspension. Benjamin Levi ("Jugovinil," Kšice Suturac, Yugoslavia). Kem. i Ind. (Zagreb) 7, 193-202 (1958).—Several factors affecting the quality of two com. poly(vinyl chloride) polymers having *K*-values of approx. 60 and 70 were studied in a series of semi-industrial polymerization runs in autoclaves.

Increasing amts. of 2 initiator catalysts of the diacyl peroxide and diaryl peroxide type contg. 1.64 and 5.33% active O, used in the polymerization reactions, were of practically no effect on the mol. wt. of the final polymerization products, but their thermal stabilities were adversely affected. Temp. was the chief factor controlling the degree of polymerization, i.e. the mean mol. wt. of the products. Poly(vinyl alc.), which proved a better suspension stabilizer than gelatin and methylcellulose, was more effective the lower its degree of hydrolysis. Efficient agitation of the polymerization mixt. was essential in achieving adequate product particle size.

N. Plastic

²

292 (113)

4E2c gp

gpd

Y/001/61/000/008/003/003
D246/D303

AUTHORS: Levi, Benjamin and Mekjavić, Ivica, Engineers

TITLE: Thermal stability of polyvinyl chloride

PERIODICAL: Tehnika, no. 8, 1961, 1461-1467

TEXT: The article describes briefly the chemistry of pvc and the experiments carried out by the authors for the purpose of establishing the most efficient pvc stabilizers. With the expanding domestic pvc industry, the question of thermal stabilizers assumes great significance. A universal stabilizer combining all the desired properties has not yet been discovered and the pvc producers resort to the use of two or more stabilizers to obtain the desired effects. A typical example is the synergistic effect of the mixture containing 1% of lead stearate and 1% of cadmium stearate. The "Jugovinil" Plant manufactures pre-stabilized polyvinyl chloride, i.e. sodium carbonate, the oldest stabilizer known, is added to powdered pvc. The authors carried out their comparative experiments on the thermal stability of domestic



Card 1/3

Y/001/61/000/008/003/003
D246/D303

Thermal stability of polyvinyl...

pvc by the DIN 53381 method, based on the change in color of the indicator paper, and by the thermostat method, by which thermal stability is determined from the degree of discoloration of the sample. The pvc used in the experiments was the high-molecular "K-value 70" pvc, corresponding to the domestic "606" pvc and the low-molecular "K-value 60", corresponding to the domestic "404". The "K 70" was tested with, and the "K 60", without plasticizer. A number of foreign and domestic stabilizers were used, including basic lead carbonate and lead stearate, produced by the "Chromos" Plant and monophenyl urea and diphenyl urea, produced experimentally by the "Fotokemika" Plant in Zagreb. The results proved the efficiency of the two testing methods: The thermostat method shows the rate of thermal decomposition and the simultaneous gradual change in color, by visual detection, while the DIN method, although giving final exact values and, thus, complementing the other method, does not permit the detection of color, hues and transparency degree. Quality stabilizers show that by increasing their amount to a certain optimum value, the thermal stability improves. This optimum value is between 5 and 7 parts in inorganic and inorganic-organic and

Card 2/3

Y/001/61/000/008/003/003
D246/D303

Thermal stability of polyvinyl...

0.5 to 1 part per 100 parts of pvc in organic and organo-metallic stabilizers. When plasticizers are used, smaller amounts of stabilizers are needed. Organo-metallic stabilizers containing tin are the most efficient and most universally employed stabilizers for all types of pvc compounds. There are 5 figures and 7 non-Soviet-bloc references. The four most recent references to English-language publications read as follows: H.V. Smith: British Plastics, 5, 1954, p. 176; H.V. Smith: British Plastics, 6, 1954, p. 213, H.V. Smith: British Plastics, 8, 1954, p. 307; E. Parker: Kffe, 8, 1957, p. 443.

SUBMITTED: February 15, 1960

Card 3/3

BULYGIN, I.I., inzh.; BERGMAN, K.O., kand.tekhn.nauk; GLADYREVSKAYA, S.A.,
kand.tekh.nauk; LEVI, B.I., kand.tekhn.nauk

Protective measure for tank cars transporting sulfuric and
mixed acids. Vest. ISNII MPS 20 no.5:47-50 '62. (MIRA 15:8)

1. Nauchnyy institut po udobreniyam i insektofungisidam i Nauchno-
issledovatel'skiy institut zheleznodorozhnogo transporta.
(Tank cars--Corrosion) (Protective coatings)

YANUSHKO, A.D.; LEVI, B.M.

Tapping maturing pine plantations. Gidreliz i lesokhim. prem. 11
no.6:24 '58. (MIRA 11:10)

1. Belerusskiy lesotekhnicheskii institut (for Yanushko). 2. Berisovskiy
khimleskhoz (for Levin).
(Tree tapping)

LEVI, Benjamin, inz. (Beograd, Baba Vlanjina 29/III)

Present state and trends in the development of synthetic material industries in the world and in Yugoslavia. Tehnika Jug 18 no.9: Suppl.:Elektrotehnika 12 no.9:1769-1782 S '63.

18 3100

1087, 1454, 1521

30658

8/137/61/000/010/007/056

A006/A101

AUTHORS: Gross, P., Levi, D.-L.

TITLE: Metal refining with the aid of stable vaporous halides forming during the intermediate stage, and the application of this refining method to beryllium and titanium

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 10, 1961, 15, abstract 100114 (V sb. "Izmeneniye i oshistka redk. metallov", Moscow, Atomizdat, 1960, 412 - 422, Diskus. 422 - 427)

TEXT: Indirect distillation of Be was carried out in NaCl using Al_2O_3 tubes lined with various refractory metals (Fe, tungsten, Ta, Mo). The reaction temperature varied from 1,000 to 1,250°C, and the evaporation temperature from 800 to 900°C. Distillation experiments were carried out on a large scale at a reaction temperature of about 1,000°C in a steel tube, which was placed in a quartz tube lined with sheet Mo. The steel tube had 3 sections, i.e. the evaporator, the reactor and the condenser. One experiment yielded about 4 g Be. The yield of useful product was 30%. Distilled Be contained 0.07% Fe, < 0.01% Al, Mg and Mo, 0.1% Mn. Experiments of Ti distillation were made in Al_2O_3 tubes, placed into a

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30658

S/137/61/000/010/007/056
A006/A101

Metal refining with the aid of...

firmance with a Pt resistance. Using NaCl, at 800°C evaporation temperature, and 1,150, 1,250 and 1,400°C reaction temperatures, Ti distillates were obtained which corresponded to degrees of NaCl conversion equal to 7, 12.6 and 20%. In the case of employing K_2TiF_6 , the conversion degree was about 50% at 920°C evaporation temperature and 1,150°C reaction temperature; it attained 35% when using K_2TiF_6 at 1,000°C evaporation and 1,250°C reaction temperature. Theoretical calculations and thermodynamical concepts are given pertaining to the process of metal distillation by the indirect method. It is pointed out that chlorides and bromides are most suitable for the given process.

L. Vorob'yeva

[Abstracter's note; Complete translation]

Card 2/2

LEVI, Dusanka

Selective technic for optimal isolation of diphtheroids from the skin. Med. arh. 19 no.2:49-52 Mr=Ap'65.

1. Institut za mikrobiologiju Medicinskog fakulteta u Sarajevu
(Sef: Prof. dr. Aleksandar Rajkovic).

GVOZDENOVIC, Milan, prof. dr.; MILADINOVIC, Zivorad; LEVI, Dusanka, dr.

3-year observation of intestinal parasitic diseases in children
of closed communities. Med. arh. 18 no.4:73-78 Ag-S '64

1. Institut za mikrobiologiju Medicinskog fakulteta u Sarajevu
(Sef: Prof. dr. Robert Fried).

LEVI, Buzanka, dr.

Aerobic bacteria in human skin and their significance. Med.
arh. 18 no.6:41-46 N-D'64.

1. Institut za mikrobiologiju Medicinskog fakulteta u Sarajevu
(Sef: Prof. dr. Aleksandar Rajkovic).

BORJANOVIC, S.; LEVI, E.; DJUROVIC, A.

Epidemic of typhoid fever in antituberculous dispensary of
Novi Pazar in February 1955. Glasn. hig. inst., Beogr. 4 no.
3-4:41-48 July-Dec 1955.

(TYPHOID FEVER, epidemiol.
in Yugosl., epidemic in tuberc. dispensary (Ser))
(TUBERCULOSIS,
typhoid fever epidemic in tuberc. dispensary (Ser))

GEBAUER, Darinka, Dr.; VAJS-STOSIC, Nada, dr.; JEVIC, Milica, dr.;
LEVI, Eva, dr.

Bacteriological and parasitic flora in intestinal infections
(enterocolitis) and its significance in etiology of dysentery.
Higijena, Beogr. 7 no.1-4:141-145 1955.

1. Higijenski institut NRS, Beograd.

(AMEBIASIS INTESTINAL, etiol. & pathogen.

relation to intestinal bact. flora (Ser))

(INTESTINES, microbiol.

bact. flora in relation to etiol. of intestinal
amebiasis (Ser))

YUGOSLAVIA/Microbiology - General Microbiology.
Variability and Heredity.

F

Abs Jour : Ref Zhur Biol., No 22, 1958, 99276

Author : Levi, Eva

Inst :

Title : Resistance of Fermenting Types of Salmonella typhi
(Possibility of Fermentative Adaptation of S. typhi to
Arabinose).

Orig Pub : Glasnik Khirg. in-ta, 1956, 5, No 1-2, 41-45

Abstract : Of 5 strains of S. typhi, isolated from a patient, 4
were related to type II, according to Kristensen (xylo-
se-negative, arabinose-negative), and one belonged to
type IV (xylose-negative, arabinose-positive). The first
4 strains, not able to ferment even 1% arabinose, ap-
peared able to become adapted to 5% and 10% solutions of
this sugar.- Author's resume.

Card 1/1

- 14 -

LEVI, Eva, Dr.

Investigations on relations between bacteriophages and Bacilli
in cases of dysentery carriers. Glasn. Hig. inst., Beogr. 5 no.3:
49-56 July-Sept 56.

(DYSENTERY, BACILLARY, microbiol.
bacteriophage isolation from feces of patients &
carriers (Ser))

(BACTERIOPHAGE
of Shigellae, isolation from feces of patients &
carriers in bacillary dysentery (Ser))

LEVI, Eva, Dr.

Personal experience on phage typing and biotyping of
Salmonella typhi in the People's Republic of Serbia.
Higijena, Beogr. 8 no.2-3:135-143 1956.

1. Institut of Hygiene, Beograd.
(SALMONELLA TYPHOSA,
phage & fermentation typing (Ser))

BORDOSKI, Marko; GLIGIC, Ana; LEVI, Eva; BOSKOVIC, Radoslav;
NIKOLIC, Mihajlo; PERISIC, Zivadin; SUVAKOVIC, Vojislav;
VUCKOVIC, Dragan

Postvaccinal antibodies in anti-cowpox protection. Vojnosanit.
pregl. 20 no.6:346-350 Je '63.

1. Zavod za zdravstvenu zastitu NR Srbije u Beogradu,
Medicinski fakultet u Beogradu, Klinika za infektivne bolesti.
(VACCINIA) (VACCINATION) (ANTIBODIES)

S

VOLOVICH, N.I.; GORDIYENKO, Ye.G.; LEVI, E.I.

Inactivation by ultraviolet rays of the rabies virus fixed in a thin layer of the suspension. Lab. delo 7 no.10:34-38 0 '61.
(MIRA 14:10)

1. Ushgorodskiy nauchno-issledovatel'skiy institut epidemiologii, mikrobiologii i gigiyeny i Khar'kovskiy nauchno-issledovatel'skiy institut vaksain i syvorotok.

(ULTRAVIOLET RAYS—PHYSIOLOGICAL EFFECT) (RABIES)

LENI, E. K.

"Changes in Certain Morphological Characteristics of the Common Microtinae Due to the Effect of Environment." Cand Biol Sci, All-Union Sci Res Inst of Plant Protection; All-Union Order of Lenin Academy of Agricultural Sciences ineni V. I. Lenin, Leningrad, 1955. (KL, No 12 Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

LEVI, E.K.

Three-dimensional visual aids in zoology. Biol. v shkole no.1:
88-89 Ja-F '63. (MIRA 16:6)

1. Kirovskiy pedagogicheskiy institut.
(Zoology—Audio-visual aids)

L 31337-66 EWT(m)/EWP(w)/EWP(v)/EWP(k) IJP(c) WW/EM
 ACC NR: AT60211146 SOURCE CODE: HU/2504/65/050/000/0167/0180

AUTHOR: Lovi, Franco (Professor; President of the European committee on concrete)

ORG: none

TITLE: Control of conditions of cracking and deformation in plates dimensioned for maximum stress

SOURCE: Academia scientiarum hungaricae. Acta technica, v. 50, 1965, 167-180

TOPIC TAGS: material deformation, crack propagation, mechanical stress, stress analysis, aerospace structure

ABSTRACT: The author intends to obviate a typical insufficiency of those dimensioning methods for plates that consider only the ultimate state of stress (e.g., the cracking-line theory) based on the absence of indications on the service behavior. The method discussed in this paper is based on the theory of adaptation of plates proposed by the author in Giornale de Genio Civile, 1950, no. 5, and compares the effect of cracks with those of the distortions, the effect of which on the state of equilibrium is investigated. A numerical example was presented. Orig. art. has: 1 figure and 14 formulas. [Based on author's Eng. abst.]

SUB CODE: 20 / SUBM DATE: 09Oct64 / OTH REF: 005

Cord 1/1 90

LEVI, G. I.

USSR/Chemistry - Catalysts

Liquid Fuels, Aromatization

Nov/Dec 51

"Irreversible Catalysis of Cyclohexane on Activated Carbon of a High Degree of Purity," N. D. Zelinskiy, G. I. Levi, Lab Org Chem imeni Acad N. D. Zelinskiy

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 6, pp 819-820

Using carbon prepd by burning recrystallized sugar and activated with O_2 , found that at 450° , in the absence of H_2 , 30-35% of cyclohexane are disproportionated into benzene and cyclohexane. With an excess of H_2 , the irreversible catalytic reaction practically does not occur on carbon at $400-450^\circ$. Hydrogenation of cyclohexane also does not occur under these conditions. The results prove that irreversible catalytic conversion of cyclohexane proceeds carbon of high purity (i.e., carbon which does not contain metal promoters.)

PA 197T18

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Organic Chemistry

✓ Catalytic alkylation of benzene with ethyl and propyl alcohols. M. B. Zaitseva, G. I. Lebedev, M. E. Kulmova, and M. E. Kulmova [M. E. Kulmova, State Univ. Moscow]. *Doklady Akad. Nauk SSSR* 86: 1053 (1953). -- The reaction of EtOH with C_6H_6 over an aluminosilicate is best at 450°. With a 1.3% catalyst at space velocity 0.66 the yield is 15% based on C_6H_6 . At 0.03 space velocity it rises to 24%. The product is readily obtained from the alkylate by extraction with optimum temp. is 325°. Space velocity of 0.66 gives $\text{C}_6\text{H}_5\text{EtOH}$ when the yield reaches 52%. The product is readily obtained by distn. PCl_5 is used but only in 44-45% yield.

5(3)

SOV/62-58-12-20/22

AUTHORS: Levi, G. I., Balandin, A. A.

TITLE: The Energy Barriers of the Reactions of Opening and Closing of Hydrocarbon Cycles (Ob energeticheskikh bar'yerakh reaktsiy razmykaniya i zamykaniya tsiklov uglevodorodov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 12, pp 1497-1498 (USSR)

ABSTRACT: This is a brief account of the calculation of the amount of the energy barriers of the hydrogenolysis of hydrocarbons with an opening of 3-, 4- and 5-membered cycles (Table 2) and the dehydrocyclization with the formation of a cyclopentane cycle. The amount of these barriers (E') can be found by means of the equations of the multiple theory (Ref 2). The quantity E' is the energy difference between the breaking and the forming bond in this or that stage of the reaction, which tends to a limit value. In the case concerned this was assumed to be the adsorption stage, i.e. the stage of the formation of a multiple complex. The smaller the absolute quantity E' the more easily the reaction takes place, all other conditions being maintained. The calculated results are in good agreement

Card 1/2

The Energy Barriers of the Reactions of
carbon Cycles

SOV/62-58-12-20/22
Opening and Closing of Hydro-

with experimental results.

There are 2 tables and 7 Soviet references.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D.
Zelinskiy Academy of Sciences, USSR)

SUBMITTED: June 5, 1958

Card 2/2

5 (2)

AUTHORS:

Balandin, A. A., Turova-Polyak, M. B., SOV/62-59-8-33/42
Levi, G. I., Khoyfits, L. A.

TITLE:

On the Formation of Elementary Phosphorus Under the Effect of Hydrogen and Vapors of Organic Substances on a Phosphoric Acid Catalyst on Activated Coal

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 8, p 1499 (USSR)

ABSTRACT:

In this short communication the authors report on the conditions and causes of elementary phosphorus forming during work with the above mentioned phosphoric acid catalyst. When hydrogen and vapors of organic substances pass over the catalyst the formation begins at 400° and, in the case of nitrogen, at 600°. Oxygen traces in the vapors prevent phosphorus formation. It is supposed that the phosphorus reduction is effected by the especially active surface atoms of the activated coal and the hydrogen atoms. There is 1 Soviet reference.

Card 1/2

On the Formation of Elementary Phosphorus Under the SOV/62-59-8-33/42
Effect of Hydrogen and Vapors of Organic Substances on a Phosphoric Acid
Catalyst on Activated Coal

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
 (Moscow State University imeni M. V. Lomonosov). Institut
 organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR
 (Institute of Organic Chemistry imeni N. D. Zelinskiy, Academy
 of Sciences, USSR)

SUBMITTED: February 19, 1959

Card 2/2

VASSERBERG, V.E.; BALANDIN, A.A.; LEVI, G.I.

Radiochemical study of the mechanism of dehydration catalysis. Part 1:
Reactions of C¹⁴-dimethyl ether with hydrocarbons. Kin. 1 kat. 2
no.1:61-65 Ja-F '61. (MIR 14:3)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR,
(Ether) (Hydrocarbons) (Dehydration(Chemistry))

S/195/61/002/005/020/027
E030/E185

AUTHORS: Levi, G.I., and Vasserberg, V.E.

TITLE: Radiochemical study of the mechanism of dehydration catalysis. II. The interaction between C^{14} -dimethyl ether with carbonyl, or some other oxygen-containing compounds

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 758-761

TEXT: The present paper is a continuation of previous work (Ref.1: V.E. Vasserberg, A.A. Balandin, G.I. Levi, Kinetika i kataliz, v.2, 61, 1961); both were presented at the Conference on Isotopes in Catalysis.

Studies have been made of the passage of C^{14} from dimethylether into reaction products with ketones, aldehydes, glycols, and some complex and cyclic ethers, in the presence of an alumina catalyst at 316-320 °C and a pressure of 1 atm. These, and earlier results, support the hypothesis of interactions by intermediate complexes on the surface of the alumina catalyst, at high temperatures and pressures. All experimental details are the same as in the previous work (Ref.1). Earlier work

Card 1/4

Radiochemical study of the

S/195/61/002/005/020/027
EO30/E185

showed movement of the C^{14} from ethyl, isopropyl, and benzyl alcohols, but not for toluol groupings of alcohols; to see the mechanisms operative in dehydration catalysis the present work therefore extended to cover various types of carbonyl and oxygen-containing compounds. The results are given in Table 1. The activity of the products is given by the specific activity in pulse/min.mg $BaCO_3$ (α) and in % of the initial activity of dimethyl ether (A), which was 22000-24000 pulse/min.mg $BaCO_3$ (in experiments with complex ethers - 35% lower). Firstly, except for acetylacetone, carbonyl groups, similar to alcohols and ethers, also permit C^{14} to reach the second and subsidiary products in considerable activity. Secondly, acetone used as second component was separated and converted into 2,4-dihydro-phenylhydrazone, which had considerable activity, and about 1° higher melting point than the pure unradioactive material. Thirdly, acetylacetone and 1,2-propanediol had no activity after the test at a relatively low temperature (230 $^\circ C$), testifying to satisfactory efficiency in separating the initial marked

Card 2/0 ✓

Radiochemical study of the

S/195/61/002/005/020/027
E030/E185

dimethylether from the resulting products. The results obtained in the present and the previous work (Ref.1) show that in the presence of an alumina catalyst an isotopic exchange takes place under conditions of dehydration catalysis. They confirm the suggestion made before, that there is an interaction between the intermediate products formed on the surface of the catalyst, giving not association products but substitution products, through radical-like complexes on the catalyst surface. Experimental results obtained not long ago agree with this (Ref.5: V.E. Vasserberg, A.A. Balandin, I.R. Davydova, Dokl. AN SSSR, v.136, 377, 1961. Ref.6: V.E. Vasserberg, I.R. Davydova, T.V. Georgiyevskaya, Kinetika i kataliz, v.2, 774, 1961). This hypothesis should cover a wide range of catalytic processes, such as cracking, hydro-dehydrogenation, isomerization, etc. Two questions appear resolved. First, dioxane, although an ether with a very stable ring, can undergo isotope exchange, since the dioxane-1,2 glycol system is clearly analogous to the diethylether-ethyl alcohol system. Second, the difference in behaviour between β - and α -diketones arises

Card 3/04

Radiochemical study of the

S/195/61/002/005/020/027
E030/E185

because the former readily chelate, especially with lighter metals such as aluminium. The chelation destroys the surface activity, as observed; the γ -ketones chelate only with heavier metals, such as copper, and hence retain their activity on alumina. Acknowledgments are expressed to Academician A.A. Balandin, who directed the work, and to laboratory worker A.A. Sidakova who participated in the experiments. There are 1 table and 6 Soviet-bloc references; two of them Russian translations from non-Soviet-bloc publications. ✓

ASSOCIATION: Institut organicheskoy khimii im. N.D. Zelinskogo
AN SSSR
(Institute of Organic Chemistry imeni
N.D. Zelinskiy, AS USSR)

Card 4/04

LEVI, G.I.

Isotopes in catalysis. Vest.AN SSSR 31 no.9:132-135 3 '61.
(MIRA 14:10)
(Isotopes) (Catalysis)

LEVI, G.I.; VASSERBERG, V.E.

Recirculating catalytic apparatus. Kin.i kat. 3 no.4:527-528
Jl-Ag '62. (MIRA 15:8)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
(Catalysis) (Chemical reactors)

SLINKIN, A. A.; LEVI, G. I.; KIPERMAN, S. L.

Calculation of the energy of bonds between the catalyst surface and the reacting atoms of organic molecules (on the article by V. Kh. Matiushenko "Theory of catalyst selection and the bond energy"). Zhur. fiz. khim. 37 no. 3:712-715 Mr '63.
(MIRA 17:5)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

LEVI, G. M.

A

F

3004. NEW EQUIPMENT FOR VENTILATION OF BLIND HOUSINGS.
Kl. mkgan, S. Lh. and Levi, G.M. (Ugal.(Csal), Hy 1951, 10-25). (U).

LEVI, O.M., laureat Stalinskoy premii, inzhener

Dust control in mines. Zdorov'e 2 no.4:23-24 Ap '56. (MLRA 9:7)
(MINE DUSTS)

2211, 5-17
LEVI, G.N.

Conference on controlling automatically operated cutter-
loaders. Ugol' 32 no.12:42-43 D '57. (MIRA 11:1)
(Coal mining machinery)
(Automatic control)

LEVI, G.S.; LANDA, Ye. G.

Blood transfusion into bone marrow in infants. Vopr. pediat. 19 no.2:
20-22 1951. (CIML 20:8)

1. Prof. G.S. Levi; Assistant M.G. Landa. 2. Of the Department of
Pediatrics, Odessa State Institute for the Advanced Training of
Physicians and of the Department of Pediatrics of Odessa Medical
Institute (Head of Departments--Prof. G.S. Levi).

LEVI, G.S., prof. (Odessa)

"Serum disease (clinical aspects and prophylaxis)" [in Ukrainian].
Vrach.delo no.7:147-148 J1 '60. (MIRA 13:7)
(SERUM SICKNESS)

LEVI, G.S.; SHIRIL', Ye.M.; LEYBOVICH-MIRONENKO, A.A.; SUKMANSKIY, Ye.I.

Gastrointestinal diseases in children caused by intestinal bacilli
of pathogenic serotypes. Vop. okh. mat. i det. 6 no.10:94 0 '61.
(MIRA 14:11)

1. Iz kafedry gosital'noy pediatrii Odesskogo meditsinskogo
instituta imeni N.I.Pirogova i Detskoy klinicheskoy bol'nitsy.
(ESCHERICHIA COLI) (INTESTINES—DISEASES)

LEVI, G.S., prof.

Lev Tolstoi and children. *Pediatria* no.6:8-12 '61.

(MIRA 14:9)

(TOLSTOI, LEV, NIKOLAEVICH, 1828-1910)

LEVI, G.S. [Levi, H.S.], prof.

M.S. Maslov, eminent Soviet pediatrician; on his 75th birthday.
Ped., akush. 1 gin. 22 no 5:32-33 '60. (MIRA 15:6)
(MASLOV, MIKHAIL STEPANOVICH, 1885-)

LEVI, Isak, inzh.

Technology of machine building, and standardization. Ratsionalizatsiia
14 no.7:21-24 '64

1. Plant No.12.

LEVI, Isidor, Pukovnik dr.

Inefficiency in utilization of ambulance facilities. Voj.
san. pregl., Beogr. 13 no.1-2:78-81 Jan-Feb 56.

(MEDICINE, MILITARY AND NAVAL,
ambulance utilization (Ser))
(AMBULANCES,
military utilization (Ser))

LEVI, Isidor, dr., sanitetski pukovnik

On traumatism in the military personnel during the time of
peace and its prevention. Voj. san. pregl., Beogr. 17 no.1:53-
57 Ja 1960.

(MILITARY MEDICINE)

(ACCIDENTS prev. & control)

MANDRYKA, P.A. (G.Lugansk), LEVI, I.B. (g.Lugansk), KASHPAROV, N.A.
(g.Lugansk)

Operations of stations and approach tracks based on the new technology. Zhel.dor.transp. 42 no.12:67-69 D '60. (MIRA 13:12)

1. Zamestitel' nachal'nika Luganskogo otdeleniya Donetskoy dorogi (for Mandryka). 2. Nachal'nik gruzovogo otdela Luganskogo otdeleniya Donetskoy dorogi (for Levi). 3. Zamestitel' nachal'nika otdela dvizheniya i passazhirkoy raboty Luganskogo otdeleniya Donetskoy dorogi (for Kashparov).
(Railroads--Management)

KASHPAROV, N.A. (g.Lugansk); LEVI, I.B. (g.Lugansk)

Comprehensive plan for rhythmic operation in the division. Zhel.
dor. transp. 43 no. 7:60-62 J1 '61. (MIRA 14:7)

1. Zamestitel' nachal'nika otдела dvizheniya i passazhirskoy raboty
luganskogo otdeleniya (for Kashparov). 2. Nachal'nik tekhniko-planovo-
ekonomicheskogo otдела luganskogo otdeleniya (for Levi).
(Railroads—Management)

LEVI, I.I.

Investigation of silting processes in sedimentation tanks. Trudy Len.politekh
inst. no.4:123-132 '47. (MLRA 6:8)

(Sedimentation and deposition)

LEVI, I.I., professor, doktor tekhnicheskikh nauk.

Method of calculating sluiceway operation in hydraulic structures
to prevent scouring of the bottom and damage to the channel facing.
(MLRA 10:2)
Izv.VNIIG no.32:95-110 '47.
(Sluice gates)

LEVI, Ivan Ivanovich

The dynamics of channel currents Leningrad, Gos. energ. izd-vo, 1948. 224 p. (49-20787)

TC175.143

LEVI, I.I.

25689

O neustanovivshemysya dvizhenii shidkosti v razmyvayemykh ruslakh. Trudy Leningr
politekhn. In-Ta. Im. Kalinina 1948, No. 5, s. 190-98

SO: LETOPIS' No. 34

LEVI, I.I., prof., doktor tekhn. nauk

Motion of a river flow in the presence of whirlpool zones.

Izv. VNIIG 46:7-32 '51.

(MIRA 12:5)

(Rivers)

1. LEVI, I. I.
2. USSR (600)
4. Dynamics of a Particle
7. Remarks on the kinematics of silt-loaded stream and equations for the movement of the suspended silt. Izv.AN SSSR Otd.tekh,nauk, no. 11, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

LEVI, I.I., prof., doktor tekhn.nauk

Simulating local washouts of beds in the tail water of hydraulic installations. Izv.VNIIG 48:3-18 '52.

(MIRA 12:5)

(Hydraulic engineering--Research)

LEVI, I.I., prof., doktor tekhn.nauk

Astray currents in the tail water and their prevention. Izv.
VNIIG 50:26-43 '53. — (MIRA 1275) —
(Hydraulics)

LEVI, I.I., professor; SEMANOV, N.A., kandidat tekhnicheskikh nauk,
redaktor.

[Hydraulic engineering construction on lowland rivers] Gidro-
tekhnicheskoe sooruzheniia na ravninnykh rekakh. Leningrad,
1955. 30 p. [Microfilm] (MLRA 9:1)
(Hydraulic engineering)

LEVI, Ivan Ivanovich; MOZHEVITINOV, A.L., redaktor; ZABRODINA, A.A., tekhnicheskii redaktor.

[Movement of river currents on the lower levels of hydrotechnical structures] Dvizhenie rechnykh potokov v nizhnikh b'efakh gidrotekhnicheskikh sooruzhenii. Moskva, Gos.energ.isd-vo, 1955. 256 p.
(Hydraulic engineering) (MIRA 8:5)

SOV/124-57-5-5558

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 64 (USSR)

AUTHOR: Levi, I. I.

TITLE: River-basin Erosion in the Tail Water of Hydraulic Structures
(Razmyvy v nizhnikh b'yefakh rechnykh gidrouzloy)

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1955, Nr 178, pp 31-50

ABSTRACT: Proceeding from the stability criteria for an isolated particle of loose soil lying at the bottom of a river, in accordance with the assumptions of the two-dimensional problem the author adduces the formula

$$k = \frac{U}{u} = f(F, \frac{s}{L}, \zeta, \frac{h}{d})$$

wherein: U is the mean noneroding flow velocity under conditions of localized erosion (i. e., the mean flow velocity measured downstream of the installation at which erosion ceases); u is the mean noneroding flow velocity under conditions of uniform flow; F is the Froude number; s/L is the relative distance from that section of the channel at which flow constriction starts, i. e., at the base of the scour-protection apron, to that section of the channel at which erosion

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River-basin Erosion in the Tail Water of Hydraulic Structures

SOV/124-57-5-5558

commences (L being the length of the region of flow-energy dissipation); ξ is the ratio of the tail-water flow depth to the second conjugate depth of the hydraulic jump [Trans. Ed. Note: i. e., the depth immediately downstream of the jump]; h/d is the relative roughness of the channel surfaces (i. e., the ratio of the flow depth to the diameter of a particle of loose soil). An account is given of several laboratory experiments involving the erosion of fine sand (of grain diameter d from 0.2 to 0.8 mm) downstream of a horizontal apron in flows characterized by Froude numbers of from 6 to 90, and on the basis of these experiments the author evolves some empirical formulae -- an example of which is:

$$k = 0.14 \sqrt{F} \frac{s}{L} + \frac{2.5}{3 \sqrt{F^2}} \quad (F = 8 \text{ to } 30)$$

While the validity of these empirical formulae has been confirmed to some extent by the results of certain other experiments which the author has conducted under very similar conditions, the confirmation achieved thereby cannot be regarded as adequate. The author assumes that the erosion rates downstream of longer aprons are consistent with the erosion rates found downstream of the shortest apron and that, the hydraulic flow elements being assumed to be the same, the ratio of the

Card 2/3

SOV/124-57-5-5558

River-basin Erosion in the Tail Water of Hydraulic Structures

channel depth at which the erosion attributable to the water alone is at its greatest to the uniform-flow depth at noneroding flow velocities will be approximately the same whatever the grain size of the loose soil being eroded (albeit the numerical data yielded by the author's experiments are not given). An empirical formula is adduced for calculating at what channel depths the erosion rate may be expected to be greatest and how long the surface-stabilizing aprons must be to eliminate erosion. The author does not explore the question as to the limits within which the recommendations made in the paper may be valid.

M. S. Vyzgo

Card 3/3

LEVI, I.I.

On I.G. Mgiasarev's article "Sediment transport capacities of open
streams." Izv. AN SSSR Otd. tekhn. nauk no. 9: 124-126 8 '56.
(Silt) (MLBA 9:9)

LOGINOV, F.G.; BASHVICH, A.Z.; BELOV, A.V.; VOZHESHENSKIY, A.N.; GLEBOV, P.D.;
KACHANOVSKIY, B.D.; KHAVTSOV, V.I.; LEVY, I.I.; MOROZOV, A.A.; NOSOV,
R.P.; OKOROKOV, S.D.; PROSKURYAKOV, B.V.; STAROSTIN, S.M.; URAZOV, A.A.;
CHERTOUSOV, M.D.; CHUGAYEV, R.R.; SHCHAVNIKOV, D.S.; YAGN, Yu.I.

V.S.Baumgart.; obituary. Gidr.stroi. 25 no.5:58 Je '56. (MLRA 9:9)
(Baumgart, Vladimir Sergeevich, d.-1956)

124-57-1-519

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 65 (USSR)

AUTHOR: Levi, I. I.

TITLE: Tasks for Investigation in the Field of Energy Dissipation in Hydraulic Structures (Zadachi issledovaniy v oblasti problemy gasheniya energii v gidrotekhnicheskikh sooruzheniyakh)

PERIODICAL: Izv. Vses. n.-i. in-ta gidrotekhn., 1956, Vol 55, pp 3-6

ABSTRACT: Bibliographic entry

1. Hydraulic systems--Energy losses analysis

Card 1/1

LEVI, Ivan Ivanovich; KHOROZ, V.S., redaktor; ZABRODINA, A.A., tekhnicheskiy
redaktor

[The dynamics of channel currents] Dinamika ruslovykh potokov.
Moskva, Gos. energ. izd-vo, 1957. 252 p. (MIRA 10:6)
(Rivers) (Hydraulics)

LEVI, I.I., prof.doktor tekhn.nauk

Regularity of density currents in water reservoirs. Nauch.dokl.vys.
shkoly; stroi. no.1:223-227 ' 58. (MIRA 12:1)

1. Rekomendovana kafedroy inzhenernoy gidrologii Leningradskogo poli-
tehnicheskogo instituta.
(Reservoirs) (Hydraulics)

LEVI, I.I.

Turbulent streams associated with channel erosion in tail waters
of hydroelectric power centers. Nauch.-tekhn.inform.biul. LPI
no.1/2:81-87 '58. (MIRA 12:6)
(Hydrodynamics)

SOV-98-58-2-19/21

AUTHORS: Glebov, P.D., Professor, Chairman of the Anniversary Commission, and Professors: Levi, I.I.; Yagn, Yu.I.; Chugayev, R.R.; **Docents:** Starostin, S.M.; Kachanovskiy, B.D.; and Pogorelov, V.I.

TITLE: The 50th Anniversary of the Hydraulic Engineering Department of the Leningrad Polytechnical Institute imeni M.I. Kalinin (50-letiyе gidrotekhnicheskogo fakulteta Leningradskogo politekhnicheskogo instituta imeni M.I. Kalinina)

PERIODICAL: Gidrotekhnicheskogo stroitel'stvo, 1958, Nr 2, pp 62-63 (USSR)

ABSTRACT: The authors review the establishment and purpose of the Dept. for Hydraulic Engineering, pointing out that the department has at present 8 laboratories, with a branch for meliorative soil science. The erection of 2 new laboratories began this year: Hydraulic Engineering Construction and Utilization of Water Power. The authors name 24 scientists and engineers who were working at the faculty before the revolution, and mention textbooks composed by N.N. Pavlovskiy, M.D. Chertousov, A.A. Morozov, G.K. Risenkampf, P.D. Glebov, V.A. Kind, S.D. Okorokov, O.G. Ditts and N.M. Belyayev.

Card 1/3 During the 50 years of its existence the faculty has turned

SOV-98-58-2-19/21

The 50th Anniversary of the Hydraulic Engineering Faculty of the Leningrad Polytechnical Institute imeni M.I. Kalinin

out over 3,500 engineers. Several important scientific trends have started at this institute. There is the school of Academician N.N. Pavlovskiy, with great achievements in the field of hydraulics and dam construction; the school of Academician B.G. Galerkin, who has done remarkable work in three-dimensional problems of the theory of flexibility, etc; Professor G.N. Maslov has greatly developed the theory of temperature tensions in solid concrete and reinforced concrete structures; the school of Academician G.P. Perederiy, one of the most famous Soviet bridge builders, who has created new methods of computing and constructing bridges; the school of the Honored Worker in science and engineering, A.A. Morozov has had a great influence on the development of hydroelectric power plants. The authors also point out considerable experimental and research work performed by the

Card 2/3

SOV-98-58-2-19/21

The 50th Anniversary of the Hydraulic Engineering Faculty of the Leningrad Polytechnical Institute imeni M.I. Kalinin

faculty in connection with the building of several hydro-electric power plants.

1. Water power--USSR
 2. Soils--USSR
 3. Engineering personnel
- USSR

Card 3/3

LEVI, I.I.; KULESH, N.P.

Motion of a flow heavily saturated with fine sedimentation material in reservoirs and special features in the calculation of silting of such reservoirs; summary of the report. Trudy Lab. ozeroved. 7:87-90 (MIRA 11:10)
'58.

1. Nauchno-issledovatel'skiy institut gidrotekhniki Ministerstva elektrostantsiy SSSR.
(Reservoirs) (Silt)

7
Probably: All-Union Scientific Research Institute
of Hydraulic Engineering of the Ministry of
Construction of Electric Power Stations, USSR,
in B. Ye. Vedneyer (Leningrad)

LEVI, I.I., prof.

The theory of bottom currents in reservoirs. Izv.VNIIO 62:3-17
'59. (MIRA 13:6)
(Reservoirs) (Hydraulics)

LEVI, Ivan Ivanovich; KOZHEVNIKOV, M.P., red.; ZHITNIKOVA, O.S., tekhn. red.

[Model studies of hydraulic phenomena] Modelirovanie gidravlicheskih
iavlenii. Moskva, Gos.energ. izd-vo, 1960. 210 p. (MIRA 14:6)
(Hydraulic models)

LEVI, I. I. (Leningrad)

"The Theory of Flow Carrying Suspended Sediments in Storage Reservoirs."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

ANDRINYA, Oleg Vladimirovich, dotsent, kand.tekhn.nauk; LEVI, I.I.,
prof., doktor tekhn.nauk, retsensent; MILASHECHKIN, A.A.,
prof., retsensent; IYEVLEVA, T.A., red.; GALAKTIONOVA, Ye.N.,
tekhn.red.

[Designing bridges] Proektirovanie mostovykh perekhodov.
Izd.2., perer. Moskva, Nauchno-tekhn.isd-vo M-va avtomobil'-
nogo transp. i shosseinykh dorog RSFSR, 1960. 294 p.
(Bridges) (MIRA 14:2)

LEVI, I.I., prof., doktor tekhn.nauk

Silt accumulation in reservoirs built on rivers which carry fine
suspended matter. Izv. VNIIG 65:3-22 '60. (MIRA 14:5)
(Silt)

LEVI, I.I.; KULESH, N.P.

Flow characteristics of density currents in reservoirs. Trudy LPI
no.208:101-113 '60. (MIRA 13:9)
(Reservoir sedimentation)

LEVI, I.I., doktor tekhn.nauk, prof.; SKLADNEV, M.F., kand.tekhn.nauk;
MOSHKOV, L.V., kand.tekhn.nauk

Coordinating conference on problems of the hydraulics of high-
pressure spillway structures. Gidr. stroi. 32 no.1:59-61 Ja
'62. (MIRA 15:3)

(Spillways--Congresses) (Hydraulics)

LEVI, I.I. (Leningrad)

"Turbulent structure of immersed hydraulic jump".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

LEVI, I.I., prof. doktor tekhn. nauk

Divergence of flow and depth of scour of a channel beyond
the apron of hydraulic structures. Izv. VNIIG 73:2-2: 163
(MIRA 18:1)

I. 21238-66 EMT(1)/EMP(m)/EMR(d)/ETC(m)-6/EMR(1) WT
ACC NR: AP3024898 UR/0382/65/000/003/0041/0043

AUTHOR: Levi, I.I.; Mikhalev, M.A.

ORG: None

TITLE: Approximate method for the calculation of flow in the region of sudden widening in the presence of a magnetic field

SOURCE: Magnitnaya gidrodinamika, no. 3, 1965, 41-43

TOPIC TAGS: magnetohydrodynamic theory, magnetohydrodynamic jet

ABSTRACT: The problem of sudden expansion of flow in the presence of a magnetic field is solved by combining the method of integral relationship with certain simplifying assumptions, including the existence of a universal velocity profile. The basic system of equations is given by (1) and (2). In the symmetrical case, the maximum velocity, $\bar{u}$, is given by the solution (4) of the equation (3):

$$u \frac{\partial u}{\partial x} + v \frac{\partial u}{\partial y} = -\frac{1}{\rho} \frac{\partial p}{\partial x} + \nu \frac{\partial^2 u}{\partial y^2} - \frac{\sigma}{\rho} B_z^2 (u - u_0) \quad (1)$$

$$\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} = 0 \quad (2)$$

$$b \frac{d\bar{u}}{dx} A(\eta) + b\bar{u} \frac{d\bar{u}}{dx} C(\eta) + \bar{u} \frac{db}{dx} D(\eta) + \bar{u}^2 \frac{db}{dx} F(\eta) = \lambda(\eta) \bar{u}, \quad (3) \quad \ln \bar{u} A(\eta) + \bar{u} C(\eta) = x \lambda(\eta) / b + \text{const.} \quad (4)$$

A similar solution is found for the unsymmetrical flow case. Orig. art. has 11 forms.

SUB CODE: 20

SUBM DATE: 01Mar65/

ORIG REF: 004

UDC 538.4

Card 1/1

1971, 1.1. ... POZDNEV, Y.I., ...
...; ...; ...; ...

... of ... no. 7140-10 ...
(MIRA 18:6)

LEVI, L.I.; POZDNEV, Yu.D.

Swelling properties of bentonite from various deposits. Lit. proisv.
no.9:20-22 8 '64. (MIRA 18:10)

1,2-Dithiolane (trimethylene disulfide) from trimethylene sulfide. Yu. K. Yur'ev and I. S. Levi (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 73, 983-6 (1950).—Passage of $\text{CH}_2(\text{CH}_2)_2\text{S}$ (80 g) over

Al_2O_3 at 250° at 10 g./hr. in a N atm. gave much H_2S and 6 g. catalyzate, which on distn. with PtO_2 gave 0.5 g. solid, m. $72-4^\circ$, and much C; the off-gas contained much H_2 and olefins. A similar expt. with 25 g. sulfide run in a H_2S atm. gave 8.0 g. catalyzate that solidified on standing and, on redistn., m. $76.5-7.5^\circ$ (from pyridine); some 0.6 g. pure product thus obtained was 1,2-dithiolane, confirmed by analysis, mol. wt., and conversion to 1,3-propanedithiol, b.p. $170-1^\circ$, n_D^{20} 1.5302, d_4^{20} 1.0772, upon heating 16 hrs. with Zn and 80% H_2SO_4 ; the dibenzozole, m. $85.5-6.5^\circ$ (from PtO_2), was identical with an authentic specimen. Repetition of the synthesis at 300° with 50 g. sulfide gave 2 g. dithiolane, b.p. $170-1^\circ$, m. $76.5-7.5^\circ$. The product fails to give reactions characteristic of mercaptans or sulfides. (I. M. Kozlov)

LIWVI, I. S.

"Catalytic Conversions of Trimethylene-Glycol and Four-Membered Oxygen and Sulfur-Containing Heterocyclic." Sub 29 Jun 51, Moscow Order of Lenin State U imeni M. V. Lomonosov. *Anal Chem Sci.*

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

CA

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Catalytic dehydration of trimethylene glycol. Yu. A. Yur'ev and I. B. Levi (Moscow State Univ.), *Doklady Akad. Nauk S.S.S.R.* 78, 725 (1951). $\text{HOCH}_2\text{CH}_2\text{CH}_2\text{OH}$ (1) (149 g.) passed over Al_2O_3 in a weak stream of N_2 at 10 g./hr. at 250° gave 121 g. catalyzate, of which the fraction b/w $45-55^\circ$ (5 g.) of the aq. layer (101 g.) was identified by the Raman spectrum as a mixt. of acrolein and PrCHO , and the fraction b/w $55-67^\circ$ (10 g.) as a mixt. of allyl and Pr alcs. Further distn. of the aq. part of the catalyzate yielded unchanged 20 g. 1 and 2 g. $(\text{CH}_3)_2\text{CHCH}_2\text{OH}$. At 300° , 143 g. 1 gave 95 g. catalyzate (62 g. aq. layer and 33 g. oil). The aq. part gave 2.5 g. unchanged 1; the $45-51^\circ$ fraction (3.5 g.) is a mixt. of about 60% acrolein and 40% EtCHO ; the fraction b/w $51-7^\circ$ (3 g.) is a mixt. of 40% PrOH and 60% allyl alc. The fraction b/w $130-140.5^\circ$ is $\text{EtCH}_2\text{CMeCHO}$. The amts. of gas from 25 g. 1 were 7.31 and 2.90 cc. (S.T.P.) at 25° and 35° , resp., and their compn. (% CO_2 , CO , H_2 , C_2H_4 , C_2H_2) at 25° , 12.4, 2.2, 5.8, 10.7, 60.9, and at 35° , 7.0, 7.6, 2.8, 3.8, 78.0. Trimethylene oxide was not detected, and it is considered to be an unstable intermediate product, giving rise to EtCHO . Allyl alc. is another intermediate. The formation of acrolein and PrOH is attributed to disproportionation of 1 between allyl alc. and EtCHO . To some extent, acrolein can be formed through dehydrogenation of allyl alc., and PrOH through its hydrogenation. N. Thun

LEVI I.S.

IUR'YEV, Yu.K.; DYATLOVITSKAYA, S.V.; LEVI, I.S.

Isomerisation of α -methyl trimethylene sulfide into tetramethylene sulfide and other characteristics of four-membered saturated sulfides. Vest.Mosk.un. 7 no.12:55-62 D '52. (MLRA 7:9)

1. Laboratoriya organicheskoy khimii im. akad. N.D.Zelinskogo.
(Sulfides) (Isomers and isomerization)

3
Isomerization of α -methyltetrahydrofuran sulfide into tetra γ -butyrolactone which product m. 14-15° which was sol in
ethylene sulfide and other properties of this material are as follows:

white solid which is insol in the usual solvents. Boils at 105-110°
similarly. Thietane (III) heated with H_2O , with or with-
out a little H_2SO_4 , 4 hrs at 120-5° or 105-10° yielded a
polymeric material, m. 83°, which was identical with the
material formed as a by-product in the synthesis of III,
which is apparently $(C_4H_6O)_n$. Passage of HCl into III
gave a mild exothermic reaction, after which the mixt.
was heated gently 11 hrs. while HCl was continually in-
troduced; the product could not be distd. but yielded a
solid, m. 45°, whose mol. wt. was about 890 and which
contained S and Cl. Heating III with concd. HCl also